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Comments on EPA Document: Combined Sewer Overflows—Guidance for Financial Capability Assessment and Schedule Development

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EFAB Comments on EPA Document:
Combined Sewer Overflows—Guidance for Financial Capability Assessment
and Schedule Development

Background and Introduction

Some older American communities have combined sewers that carry both sewage and wet weather runoff. Modern practice is to build separate sewers for sewage and storm water. When the capacity of a combined sewer is exceeded during wet weather, the excess flow, which is a mixture of sewage and storm water runoff, may be discharged untreated to the environment. The excess flow is called a Combined Sewer Overflow (CSO). Discharges of CSOs can create a public health hazard and adversely impact the quality of the receiving waters.

In order to reduce the impact of CSOs during wet weather, CSO communities develop plans to control CSOs. One critical component of such plans is a demonstration of regulatory compliance with EPA's 1994 CSO Control Policy. Financing CSO programs in an equitable and timely manner without placing an unreasonable burden on ratepayers is a significant and on-going challenge for many CSO communities. The Control Policy provides an opportunity for the EPA to consider a permittee's "financial capability" when establishing a CSO mitigation implementation schedule. In 1997, EPA published the CSOs -- Guidance for Financial Capability Assessment and Schedule Development (FCA Guidance) to guide the process of assessing a community's financial capability.

During the August 2006 Environmental Finance Advisory Board (EFAB or the Board) meeting, the Director of EPA's Office of Wastewater Management, Jim Hanlon, presented EFAB with an overview of the CSO Control Policy and FCA Guidance and explained that EPA was considering modifying the FCA Guidance. Mr. Hanlon asked EFAB to review the current FCA Guidance and provide the agency with comments. A workgroup comprised of EFAB members and expert witnesses was established to lead the review.

Section 1 of the FCA Guidance Document provides a general overview of EPA CSO Policy. Sections 2 to 4 present a quantitative assessment methodology that generates "an overall assessment of the permittee's financial capability." Section 5 provides guidance on how the financial capability assessment and other factors including environmental considerations and secondary financial considerations should be applied in the CSO schedule development. The Board focused most of its attention on the existing components of the financial capability assessment methodology. We did not attempt to address many of the larger issues related to implementation of EPA's CSO and regulatory approach addressed in other FCA review documents such as the "White Paper" prepared on behalf of the National Association of Clean Water Agencies.

Under the FCA methodology, a two-step process is used to categorize the burden a CSO permittee faces as "Low," "Medium," or "High." The assessment matrix (Table 1) used to determine the burden is founded on a single Residential Indicator and a composite Financial Capability Indicator based, in turn, on 6 separate financial indicators. The use of this two-step approach promotes the view that a permittee's financial capability to implement a CSO plan is influenced by the financial impact on the permittee's residential households and the permittee's overall financial strength.

Table 1 FCA Matrix

Permittee Financial Capability Indicators Score (Socioeconomic, Debt and Financial)	Residential Indicator (Cost Per Household as % of MHI)		
	Low (Below 1.0%)	Mid-Range (Between 1.0 and 2.0%)	High (Above 2.0%)
Weak (Below 1.5)	Medium Burden	High Burden	High Burden
Mid-Range (Between 1.5 and 2.5)	Low Burden	Medium Burden	High Burden
Strong (Above 2.5)	Low Burden	Low Burden	Medium Burden

EFAB recognizes the merits of the two-step design, but believes that the current indicators, the composite system financial indicator and the residential indicator, have some significant limitations. The Board's concerns and suggestions for improving the indicators are outlined in the discussion below.

Considerations in Assessing Residential Household Impact

The current residential household impact measure is calculated by dividing an estimate of the average aggregate wastewater and CSO cost per household by the median household income (MHI) for the permittee's entire service area. We have concerns about both the denominator and numerator used to calculate this metric. Secondly, we question the prudence of using a single metric to assess residential impact.

Average Costs Per Household Versus Estimated Average Household Expenditures.

The FCA Guidance states that the purpose of the first phase test ("Residential Indicator") is to identify control costs on "individual households." The current approach assumes the entire cost of the controls is spread evenly over all households. However, in reality, the cost actually incurred by households will depend on the type of rate structure employed by the utility and the service usage of the households. For example, a utility system with an increasing block rate structure would see residential customers with large consumption incurring a much larger cost than customers with low consumption. A recent EFAB paper on affordability highlighted the importance rate structures have on distributing and allocating costs to individual households (Affordable Rate Design for Household, February 2006). A strategic rate structure change or a relatively modest subsidy targeted to assist the households with the greatest need (e.g. creation of emergency assistance funds) may greatly mitigate the financial impact on the most financially disadvantaged households in a community.

The Board suggests the methodology take into consideration the amount the permittee anticipates having to charge a household, based on average water use per equivalent dwelling unit (e.g. 5,000 to 6,000 gallons/month) and using the rate structure expected to be in effect

after the CSO improvements are implemented. If other non-user charge revenue options such as sales tax or property value based assessments generate a significant amount of wastewater treatment and CSO revenue, the permittee should consider this expenditure as well. If household affordability is a significant concern for the permittee, it is possible that the rate structure already takes this into consideration. In this case (e.g. a different/lower rate structure for low income households), the permittee should provide that information as well.

Estimating average household expenditure information may require more advanced cash flow and rate planning than calculating an annualized cost per household based solely on overall cost information. However, given the high stakes involved in negotiating CSO schedules, it is hard to imagine a permittee going into the negotiation process without a financial management plan that could be used to generate this estimate.

It is also likely that the permittee's rates will be increased substantially in the future to meet wastewater treatment and CSO requirements. Ideally, EPA should consider the magnitude of the increases by allowing the permittee to calculate and present the household indicator at different years or by presenting some type of average household expenditure over a given time period. For example, a permittee's rate structure and financing plan might result in a household using 6,000 gallons a month paying \$400 per year initially, rising to \$800 by year five. The FCA for step two specifically requires that a permittee take into consideration future changes when calculating the system financial capacity indicators. It seems reasonable, therefore, that future changes should also be considered in calculating the residential household indicator.

Expanding the Definition of Costs

If the FCA methodology continues to rely on utility costs instead of household expenditures, the Board suggests that EPA revisit the definition of cost used in the current FCA document. The current methodology defines cost as "current annual wastewater operating and maintenance expenses (excluding depreciation) plus current annual debt service (principal and interest)." The methodology goes on to state, "Expenses for funded depreciation, capital replacement funds, or other types of capital reserve funds are not included in current wastewater treatment costs because they represent a type of savings account rather than an actual operation and maintenance expense."

This definition does not seem to take into consideration some of the fundamental principles of proactive Asset Management, an approach strongly promoted by EPA. This approach urges utilities to move to a financial framework that incorporates the use of capital reserve funds and adequate budgeting for replacement. The interpretation of these funds and reserves as "a kind of savings account" is incorrect. They represent, instead, a smoothing of actual replacement and extraordinary operating costs over time. A utility that has incorporated advanced asset management into its financial plan most likely has incorporated it into the rate structure as well and the impact on customers should not be ignored.

The Board suggests the definition of cost be broadened to take into consideration additional cost components if the permittee can demonstrate that these costs will indeed be passed on to the customer (for example, if the permittee has an approved Capital Improvement Plan (CIP) and expenditure history that demonstrates the use of capital reserve funds and significant capital rehabilitation and replacement expenditures).

Consideration of the Impact of Capital Investment Planning and Financing Options on Cost

A multi-year financial plan should also take into consideration key planning issues such as when investments are made, population growth and capital financing options. A metric that does not take into consideration these issues is likely to misrepresent the actual financial impact on households. **Ideally, a permittee should be required to present estimated household expenditures on sewerage service as projected in an approved CIP or financial plan.** If key factors influencing the household expenditures are uncertain, then the permittee could present different scenarios along with an explanation. Over time, a fast growing community with excess wastewater treatment capacity is likely to see the impact on their customers change much less than a slow growing (or shrinking) community with similar CSO control costs. Similarly, the availability of extended term financing (30 to 40 years) compared to shorter term financing (20 year) could have an impact on rates.

Incremental vs. Cumulative Financial Impacts

One of the core questions for any financial impact metric is whether the metric is measuring the cumulative financial impact of a group of initiatives/services including the “new” or “added” service or if the metric is focused on the incremental impact of the environmental service or improvement being considered. In the case of the CSO FCA Guidance, the current approach is to consider the cumulative impacts of existing wastewater treatment and proposed CSO control initiatives. This follows a similar approach found in the existing Small System Variance National-Level Affordability Methodology. The Agency has proposed replacing the cumulative impact approach now used to evaluate Small System Variance requests with an incremental test (Federal Register/Volume 71, No. 41 p.10671). This new approach follows a recommendation by the National Drinking Water Advisory Council and should be at least considered as the Agency revises the CSO FCA Methodology.

In considering the possible shift from a cumulative to an incremental indicator, the Board finds that each approach has potential application within the FCA. The use of a cumulative indicator is consistent with the view that the impact of CSO implementation should not be considered in isolation from other water pollution control costs. It also tends to take account of the degree to which a community may have already borne large wastewater management costs (or other environmental costs), a possible factor in setting priorities for further requirements. The principal concern commonly expressed regarding the cumulative approach is the question of which services should be included in cumulative costs. Should the metric include just wastewater and CSO costs (as it does at present)? Should it include any costs related to complying with the Clean Water Act? What about the cost of providing safe drinking water or even non-water environmental services?

The incremental cost indicator, on the other hand, provides a more immediate and specific indicator of financial stress. It measures the additional burden that will be placed on residential users in the community as a consequence of implementing a CSO control plan. This indicator reveals the relative cost-effectiveness of CSO control in different communities. Since both financing policy and economic efficiency suggest that, other factors being equal, the most cost-effective measures should be implemented first, an incremental measure is also relevant to priority setting. The Board concluded that cumulative and incremental residential indicators each have a particular role to play. **It is recommended, therefore, that both cumulative and incremental**

residential indicators be calculated. They can be considered separately, or combined in a composite indicator as described in the next section.

Reliance on Single Indicator to Assess Residential Household Impact

Given the diversity of communities, EFAB does not believe that reliance on a single indicator, particularly one that is based on median household income, adequately describes the financial impact facing households. One of the most common objections to the use of median household income is that for many communities it masks the impact on low-income households. **The Board suggests EPA consider a composite residential indicator similar to the composite system financial indicator.** The composite indicator could include poverty rate and/or income distribution information. For example, a permittee with a poverty rate within a specific percent of the national or state average poverty rate would be considered “mid-range;” a permittee with a poverty rate significantly below the average would be rated “low” and significantly higher than average would be rated “high.” The MHI indicator and this new poverty rate indicator could be converted to an aggregate point scale system similar to the composite system indicator. Poverty rate, like MHI, is readily available from the US Census. Income distribution information is also available from the census, but is more difficult to obtain and calculate.

Commercial Customer Impact

Another drawback of the residential indicator metric is that it does little to assess the financial impact of CSO control policy on commercial customers. In some cases, the impact on these customers, especially in regions of the country where manufacturing sectors are struggling, may be just as important as, or more important than, the impact on a residential customer. If a system’s rate structure is designed to place more of a revenue reliance (burden) on commercial customers than residential customers, the relative financial impact on commercial customers may be much higher than for residential customers. Given the variation in commercial customers, establishing a standard universal “commercial indicator” metric is likely to be more difficult than for residential customers and it may be more practical to include commercial customer impact data as supplementary finance data rather than designing an additional indicator.

Considerations in Assessing System Financial Capacity

The second step of the existing FCA approach requires the calculation of a composite system financial capacity indicator based on a series of six metrics in three general categories. The methodology was intentionally designed to resemble methodologies used by credit rating agencies. As with credit ratings, the assessment score may have more to do with perceived credit worthiness than actual ability to “finance” improvements. For example, a permittee with a poor credit rating in a state that maintains a large subsidized water and sewer loan program may have more of a chance of financing CSO improvements than a permittee without access to subsidized credit. Despite this limitation, the Board understands the need to have some type of objective assessment.

Debt Indicators

The Board has specific comments relative to how Bond Ratings are presented in the FCA document; these are provided in Enclosure 2. Secondly, the reliance on a debt metric based on property value seems questionable given the availability of other debt indicators that are more

directly tied to revenue and/or system assets. Alternatives that may be better suited for this type of assessment include Total Outstanding Debt to Net Plant Assets or Total Outstanding Debt per Customer/Account. The interest rate and term of issued debt has an enormous impact and should probably be considered as well, possibly through an indicator measuring the percentage of revenues that are required to service debt. Of course, no single metric will be entirely appropriate for all permittees. For example, a debt per customer metric for a wholesale wastewater provider with a few dozen accounts should not be used. In situations like this, the permittee could be allowed to base the metric on some type of equivalent residential unit (ERU) measure.

Socioeconomic Indicators

The Board's views concerning the limitations of MHI are outlined in the discussion of the residential indicator. We strongly believe that assessment of socioeconomic conditions should not rely on MHI alone. At a minimum, another indicator such as poverty rate should be added to this section to more accurately portray socioeconomic conditions.

Financial Management Indicators

Some of the indicators that focus on non-user charge information seem out of place for evaluating a sewer utility's financial capacity given the current reliance on user fees as opposed to general tax revenue. EPA should consider alternative management indicators that consider the collection of sewer and water fees (collection rate or bad debt ratio) instead of property tax collection. Given the importance of operating margin or operating ratio in illustrating the ability of a utility to incur debt and meet their costs, EPA should consider incorporating this indicator into the composite index either as a financial management indicator or as a debt (capacity) indicator.

Clarifying Policies and Approaches Related to Financial Capability and Affordability

The Board suggests that EPA take into consideration other EPA policies and guidance related to financial impacts when modifying the FCA Guidance document, or at least when disseminating any potential modifications to the document. We are concerned that state and local officials may have difficulty distinguishing between the purpose and substance of different policies related to financial capability, capacity, and affordability. Similar, but distinct policies may include:

1. CSO Financial Capability Guidance and indicators;
2. National-Level Affordability Methodology for Small Drinking Water System Variances;
3. State implemented criteria for qualifying for Drinking Water SRF Disadvantaged Program Assistance; and
4. State implemented criteria for eligibility for more favorable Clean Water SRF financing terms.

These financial assessment policies share a common theme in their attempts to help assess "ability to pay" for environmental objectives/services; however they are applied under very different circumstances. The first two assessment policies involve triggers for alternative (and in some cases less stringent) regulatory treatment, whereas the SRF assessments are used to determine a community's access to public funding assistances (grants and subsidized loans). It may be reasonable to set regulatory relief triggers at a higher bar than grant eligibility metrics given the

public health stakes; however, at a minimum, the Agency should make a concerted effort to reconcile or link the CSO financial capability assessment indicators and methodology with the Small Drinking Water System Variant Affordability indicators or clearly explain the justification for their differences.

Conclusions

The 1997 EPA Guidance for Financial Capability Analysis and Schedule Development has been, and remains, an important tool to help assess a permittee's financial capability to meet the terms of EPA's Combined Sewer Overflows (CSO) Policy. The core of the Guidance is the two-part test used in determining financial capability, with one part addressing household (residential) impact and the second part addressing system-wide financial capability.

EFAB's review suggests that both the current residential indicator and the system financial capability indicators used in the two-part test have significant limitations and should be improved. The Board believes that EPA would be better able to assess a permittee's financial capability by incorporating the suggestions for updating these indicators contained in this report. This, in turn, would provide a stronger financial negotiating foundation for all parties regarding EPA's CSO Policy. EFAB appreciates the opportunity to provide the Agency with these comments on this important Guidance.